DOCUMENT RESUME

ED 189 322 CE 025 623

AUTHOR	Denniston, Denie: And Others
TITLE	"It Isn't Easy Being Special." Let's Help Special Needs Learners: A Resource Guide for Vocational Education Teachers. Research and Development Series No. 184.
INSTITUTION	Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY	Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
BUREAU NO	498NH90003
PUB DATE	[80]
CONTRACT	300-78-0032
NOTE	48p.: For related documents see ED 181 319-323 and ED 181 327.
AVAILABLE FROM	National Center Publications, The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Rd., Columbus, OH 43210 ($3.25)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Ancillary School Services: Coordination: *Disabilities: *Economically Disadvantaged: *Educationally Disadvantaged: Employment Potential: Environmental Influences: Individualized Instruction: Mainstreaming: Non English Speaking: Postsecondary Education: Program Development: Program Effectiveness: Program Evaluation: Secondary Education: Student Evaluation: Student Needs: Student Placement: *Teacher Role: *Teaching Methods: *Vocational Education
IDENTIFIERS	*Limited English Speaking

ABSTRACT

Divided into three chapters, this resource guide provides strategies and examples to assist the vocational education teacher working with disadvantaged, handicapped, and limited-English-proficiency students in secondary or postsecondary vocational education programs. Chapter 1 defines special needs students, lists their characteristics, and summarizes legislative requirements. Chapter 2 provides descriptions of procedures which define teacher roles and describe strategies and examples teachers can use to help students gain access to vocational education programs, perform well in these programs, and be successfully employed in the world of work. The chapter divides these procedures and strategies into three major components: (1) access, including assessing both environmental factors influencing the vocational education process and the students: (2) performance, involving planning programs and coordinating services, vocational education instructional programs, and support services: and (3) success, including employability and evaluation. Chapter 3 lists suggested resources, such as articles and books, films and filmstrips (annotated citations), and commercial work sample systems (annotated citations). (YLB)

Research and Development Series No. 184

"IT ISN'T EASY BEING SPECIAL"

ED189322

Let's Help Special Needs Learners:

A Resource Guide for Vocational Education Teachers

Denie Denniston
Nancy Lust
Lelia Hutchison
Gonzalo Garcia

CE 025 623

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

FUNDING INFORMATION

Project Title:	The National Center for Research in Vocational Education; Verified Competencies and Programmatic Guidelines: A Resource Document for Planning and Implementation of Selected Strategies in Vocational Education Programs Serving Disadvantaged, Handicapped, and Limited-English-Proficiency Students
Contract Number:	OEC-300-78-0032
Project Number:	498 NH 90003
Educational Act Under Which the Funds were Administered:	Education Amendments of 1976, P.L. 94-482
Source of Contract:	Department of Health, Education and Welfare United States Office of Education, Bureau of Occupational and Adult Education, Washington, DC
Project Officer:	Paul Manchak
Contractor:	The National Center for Research in Vocational Education The Ohio State University, Columbus, Ohio 43210
Executive Director:	Robert E. Taylor
Disclaimer:	The material for this publication was prepared pursuant to a contract with the Bureau of Occupational and Adult Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Office of Education position or policy.
Discrimination Prohibited:	Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Therefore, the National Center for Research in Vocational Education, like every program or activity receiving financial assistance from the U.S. Department of Health, Education, and Welfare, must operate in compliance with these laws.

THE NATIONAL CENTER MISSION STATEMENT

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

TABLE OF CONTENTS

Page

Foreword v

Introduction 1

Procedures For Vocational Education Teachers Serving Special Needs Students 7

- Access 8
  - Assessment 9
- Performance 14
  - Planning Programs 15
  - Coordinating Services 17
  - Vocational Education Instruction Program 17
  - Support Services 23
- Success 30
  - Employability 31
  - Evaluation 32

Summary 37

Suggested Resources 39

- Articles and Books 39
- Films and Film Strips 43
- Commercial Work Sample Systems 44

FOREWORD

Let's Help Special Needs Learners: A Resource Guide for Vocational Education Teachers was written for you, the vocational education teacher, working directly with special needs learners to help them perform successfully. As educators, we are *all* responsible for helping students with special needs to perform in the least restrictive environment. This often means mainstreaming these students in the regular classroom along with other vocational education students. If we all work as a team we can better serve "special" students by providing them with the services they need. Your positive attitude toward "special" students can make the difference between success and failure in the vocational education program and in their adjustment to the world of work. You, as a source of help, can interact with your building administrator, your school counselor, parents, volunteers, advocacy groups, paraprofessionals, the school nurse, community rehabilitation personnel, and anyone else who sincerely wants to help the "special" student. This resource guide includes a section entitled "Procedures for Vocational Education Teachers Serving Special Needs Students," which explains your role in this process and suggests ways to elicit the cooperation of school personnel and community agencies.

This resource guide is one of a series of National Center publications devoted to issues, problems, and answers in serving special needs learners. This series, *It Isn't Easy Being Special*, reflects the National Center's commitment to improving vocational education programs and services for special needs populations. The strategies and examples cited in this resource guide were identifed from the literature, site visits, and feedback from educators in vocational education, special education, and vocational rehabilitation, as well as Comprehensive Employment Training Act personnel, state programs, and community agency programs. This resource guide describes special students and emphasizes the need for positive, realistic attitudes toward them. It describes strategies that work with them, and shows how to work cooperatively with others in the use of support services.

The National Center is indebted to Lucille Campbell-Thrane, associate director of the Development Division, for editing this publication; to Special Needs Project staff—Betty Ann "Denie" Denniston, project director, and staff members Lorraine Cordova, Gonzalo Garcia, Leila Hutchison, and Nancy Lust for completing the work of this project; Sharon Pinkham and Cindy Lacey for editing; and Jennifer Bell for content assistance. Significant contributions were made to the project by its technical panel: Carolyn Brown, director of Food Services, Disadvantaged/ Handicapped Program, Connelley Skill Center, Pittsburgh, Pennsylvania; Ruth Brown, Maryland State Department of Vocational Education, Baltimore, Maryland; Helen Jones, program administrator, Physically Limited Program, Cupertino, California; Allen Phelps, College of Education, Vocational and Technical Education, University of Illinois, Champaign, Illinois; and George Quarles, chief administrator, Center for Occupational Education, Brooklyn, New York.

In addition to these panel members, we are grateful for the assistance of the consultants: Francesco Cordasco, professor of education, Montclair State College, West New York, New Jersey; Richard L. Garcia, Graduate School of Education, University of Utah, Salt Lake City, Utah; Hiram Henderson, professor, Department of Special Education, Utah State University,

Logan, Utah; and Alan Hurwitz, project director, Bilingual Vocational Teacher Training Program, Fitchburg State College, Boston, Massachusetts.

The reviewers of this publication included Ruth Brown, Dave L'Angelle, Maureen Otto, Glee Saunders, Wayne Schroeder, and Barbara Vorndran. Appreciation is extended to all site visit personnel for their contributions and to George West, Pfeifer Printing Company, Columbus, Ohio, for his assistance with graphic art and organizational concepts. A special note of thanks to Carolyn Burton, Regenia Castle, Naza Cousar, and Mary Naille for typing this publication.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

CHAPTER I

INTRODUCTION

Overview

Disadvantaged, handicapped, and limited-English-proficiency students generally require additional assistance and individualized services to gain access and to perform successfully in vocational education programs. This resource guide will help you, the vocational education teacher working with these "special" students in a secondary or postsecondary vocational education program to provide better service. The "Procedures For Vocational Education Teachers Serving Special Needs Students" section, presented in Chapter II, provides strategies and examples to assist you in the various activities your role requires. Information is given on how to assess students, plan programs, coordinate services, modify instruction, adapt equipment, provide or obtain support services, and evaluate programs and services so that your students can be employed successfully. The procedures also emphasize the importance of developing a cooperative effort among teachers, counselors, administrators, and support service personnel to plan and coordinate programs and to provide services for "special" students. In addition to the vocational teacher, the following persons have a role to play in this cooperative effort:

- Administrators of vocational schools
- Academic teacher
- Special education teachers
- Work study coordinators
- Employers
- Social service providers
- Paraprofessional aides
- Volunteers
- Advocacy groups
- Parents
- Health professionals
- Guidance personnel

With your help, they will function as a network of caring people in the school and community to facilitate the vocational preparation of special needs students.

As disadvantaged, handicapped, and limited-English proficiency students gain access to your vocational education programs, you will need information about them. Listings of books, articles, films, and work samples are provided in Chapter III.

Definitions of Special Needs Students

Disadvantaged students may be either academically disadvantaged or economically disadvantaged. Characteristics of these two types of "disadvantage" may overlap, but in general, the following definitions apply:

The Academically Disadvantaged

These students most often suffer from deficiencies in the following areas:

- They lack reading and writing skills.

- They lack mathematical skills.
- They generally perform below grade level.

The Economically Disadvantaged

Students with economic "disadvantages" are usually characterized by deficiencies in a number of the following areas:

- Their families lack adequate income.
- Their parents are generally uninvolved with the school.
- Their families may receive public assistance (welfare).
- They may be under state guardianship.

Other factors which may contribute to "disadvantagement" are family mobility, geographic isolation, being a member of a minority ethnic/racial group.

Handicapped Students

Part of the "special needs" population you will undoubtedly be dealing with are those students with various kinds of handicaps.

Individuals with handicaps may be—

- mentally retarded;
- hard-of-hearing;
- deaf;
- speech impaired;
- seriously emotionally disturbed;
- orthopedically impaired;
- other health impaired;
- multiply handicapped; or
- specifically learning disabled.

Students with Limited-English-Proficiency

Individuals with limited-English-proficiency—

- are members of a national origin minority, such as Spanish, Chinese, or Italian.
- do not speak and understand the English language in an instructional setting well enough to benefit from vocational studies to the same extent as a student whose primary language is English.

Characteristics of Special Needs Students

Special" students may show one, or all of the following characteristics:

- Frequent absence from school as a result of health problems

- Inability to relate appropriately to others in the work setting due to limited social experiences, language difficulties, and overprotection
- Unwillingness to participate in group activities as a result of rejections by others who view their physical, social, mental characteristics as unpleasant
- Limited physical mobility or dexterity which limits capacity for various types of activity
- Unrealistic vocational goals as a result of social isolation, lack of role models, and limited opportunity for occupational training
- Lack of basic academic skills in reading, writing and arithmetic
- Lack of survival skills including the ability to use a telephone directory or read the want ads in a newspaper
- Lack of a realistic self-concept due to frequent failures in school

The learning problems and challenges that disadvantaged students, handicapped students, and limited-English-proficiency students present to the vocational education teacher suggest the need to seek assistance within the school and community. Cooperative working relationships should be developed with a variety of resource persons to help your "special" students receive the services they need to complete their programs successfully.

Legislative Requirements for Serving Special Needs Students

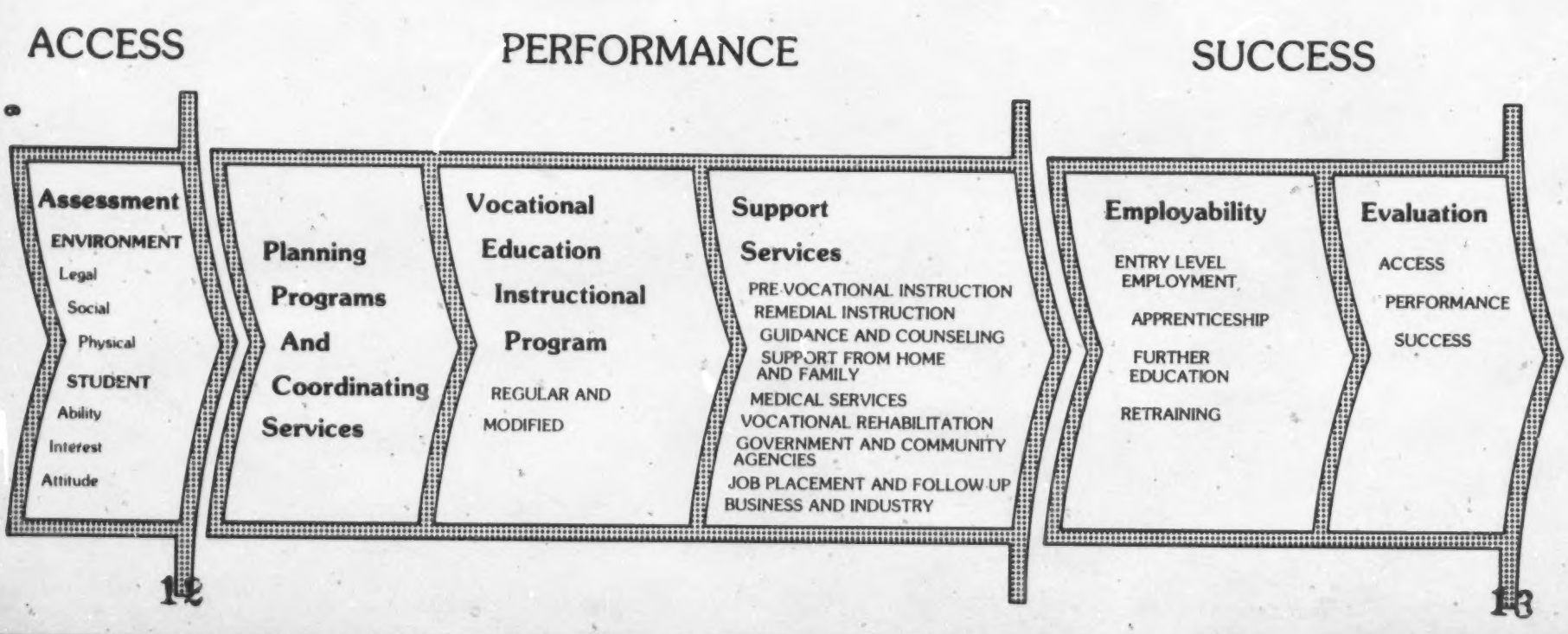
Equal educational programs and opportunities have been mandated for disadvantaged, handicapped, and limited-English-proficiency students in recent federal legislation. Four major acts show the commitment of the federal government to increase program accessibility and services for special needs students: the Education Amendments of 1976; the Education of All Handicapped Children Act of 1975; the Civil Rights Act of 1964; and the Rehabilitation Act of 1973. Major provisions of this legislation are outlined as follows:

- In any program receiving federal financial assistance, such as vocational education, discrimination is prohibited on the basis of race, color, national origin, and handicap.
- Twenty percent of funds are to be spent for vocational education programs and services for disadvantaged students (including those who have limited-English proficiency).
- Ten percent of funds are earmarked for vocational education programs and services for handicapped students.
- Individualized education programs (IEPs) are now required for handicapped students and need to indicate all programs and services they will receive.

In view of these requirements, special needs students must be provided with more opportunities to enter vocational education programs which meet their needs and prepare them for successful entry into the job market. Vocational education teachers will increasingly be

serving special needs students in the regular vocational classroom, although the best vocational placement for some students will continue to be a modified vocational education program. The procedures described in the next chapter can assist you to better meet the needs of "special" students in your vocational education programs.

Procedures For Vocational Education Teachers Serving Special Needs Students



CHAPTER II

PROCEDURES FOR VOCATIONAL EDUCATION TEACHERS SERVING SPECIAL NEEDS LEARNERS

This chapter is designed to help vocational education teachers provide services to students with special needs. Descriptions of the procedures define teacher roles and describe strategies and examples teachers can use to help these students gain access to vocational education programs, perform well in these programs and be successfully employed in the world of work.

As you view the procedures chart on the opposite page, you can see there are three major components: access, performance, and success. These three components are defined below:

ACCESS

The individual's ability to enter, or have access to a vocational education program based on assessment of environmental conditions and the individual's abilities, interests, and attitudes.

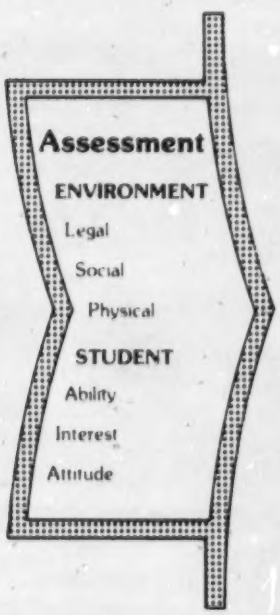
PERFORMANCE

The individual's ability to perform successfully in a vocational education program as a result of cooperative planning of programs and coordinating of services, the provision of support services, and individualized instructional methods and materials.

SUCCESS

The individual's ability to obtain and maintain employment, further his/her education, or seek retraining as determined by follow-up evaluation.

ACCESS


Assessment
ENVIRONMENT
Legal
Social
Physical
STUDENT
Ability
Interest
Attitude

ACCESS

Assessment

The procedure of assessment includes two major functions:

1. Assessing factors in the environment that influence the vocational education process for special needs students

2. Assessing the students

Information obtained from the assessment of the environment and of students provides a basis for appropriate vocational education programs. Assessment should be student oriented and flexible. Individual adaptations should be made as necessary. Employing a variety of assessment techniques provides a composite picture of the environment in which the student functions and the abilities the student brings to class.

Assessing the Environment

Resources can enrich the vocational education preparation of "special" students, but the teacher and other vocational education personnel must know how to find and use these resources. When assessing the environment, it is important to consider the legal, social, and physical conditions in which learning takes place. Individualized programs can be developed once a student's abilities, interests, and attitudes are understood.

The legal environment. Legal mandates have been set forth to encourage the provision of vocational education to disadvantaged, handicapped, and limited-English proficiency students. One of the lessons learned from CETA and Youth Employment and Demonstration Projects Act (YEDPA) legislation of 1977, is that training alone is not enough. Youth with "special" needs must have many support services if they are to be employed successfully. To do this, an individualized plan is necessary.

Disadvantaged, unemployed youth who fit the Comprehensive Employment Training Act requirements need to have an individualized work plan (IWP). This plan begins with the assessment process and plans the training and support services necessary for the individual to become employable. For handicapped students one of the most important legal requirements is the individualized education program (IEP). The IEP is the overall plan of educational services developed by a team which includes teachers, service providers, administrators, the student, and parents. At the secondary level the IEP includes information on the student's present level of achievement, goals for vocational preparation, objectives that are set for each goal, and support services which will be provided to the student while in the vocational education program. Dates are set for review of the student's progress by the IEP team.

Each student's IEP must indicate placement that represents the *least restrictive alternative*—that is, the best possible learning environment for the student in his or her vocational program.

The least restrictive environment may range from placement in a self-contained classroom to full-time participation in regular vocational education classes with support services provided. The latter is commonly termed "mainstreaming." The vocational education teacher can help in the placement of these students by providing practical information and suggestions to the IEP team and by participating in the IEP planning and review sessions.

Provisions for student safety must be considered when assessing the legal environment. (See section on the physical environment.)

The social environment. Social barriers to the acceptance of "special" students in vocational education training and in jobs are often related to personal biases. Stereotypic notions can be changed. Publicize student achievements, and allow students to display their vocational education competence in as many ways as possible through interaction with community and business leaders. School/community conferences provide another opportunity for changing attitudes. Special needs students can talk about the vocational education program and demonstrate their skills. Sensitivity to special needs groups can be fostered through interaction.

Parents of special needs students also need assistance and encouragement in accepting and working with their children. School personnel need to provide parents with accurate information to dispel misleading and inaccurate stereotypic ideas about disadvantaged, handicapped, and limited-English proficiency students. With this accurate information parents can help their children make realistic career decisions. Parents will better understand and develop esteem for their children and their children's capabilities. Parent-teacher conferences need to include discussions about non-traditional job opportunities in order to increase parent awareness of the options available to their children.

The physical environment. Physical barriers in the environment can also create difficulties for special learners. Physically handicapped students may not be able to attend classes in certain buildings because narrow doorways, stairs, narrow aisles, slippery floors, inadequate toilet facilities, inaccessible phones and fixtures, and other such problems make it impossible for them to function in the physical setting. Even in an accessible building, simple physical modifications may be needed in the classroom or laboratory to accommodate the handicapped students—often these are minimal changes such as raising or lowering work surfaces, modifying work flow, and installing signal lights and modified controls on machinery.

Transportation is also a problem for rural or isolated students. You might consider developing a transportation network to the vocational education facility, using mobile vocational training units, or providing instruction at several decentralized learning sites.

Safety information is important for special needs students who work in vocational shops. Instructions for the safe operation of machinery and equipment should be both verbal and written. Written instructions may need to be translated into the native language of limited-English proficiency students. Large print should be used for partially sighted students. Fire drill and other emergency procedures should be discussed, written, illustrated, and rehearsed. Flashing lights, along with audible signals, will alert deaf students to an emergency.

Assessing Student Needs

It is important for the vocational education teacher to understand the abilities, interests, and attitudes of special needs students. This information forms a basis for providing the most relevant and effective instructional experiences to meet students' needs. Not all traditional

methods of assessing students have been appropriate for special needs learners. Therefore, you will need to be creative and innovative with the techniques that you use to assess your students.

Student abilities. Information on abilities encompasses numerical and verbal aptitudes, learning modes, learning deficiencies, and job-related experiences and skills. Standardized tests may not accurately measure the numerical and verbal ability of special needs students. Vocational education teachers need to use other methods to more accurately gauge students' true ability levels and their rate of progress. For example, students with limited-English proficiency can be tested using a variety of sensory techniques in which the student can be asked to identify the correct response by pointing to it rather than verbalizing or writing it. These are valid tests of a student's ability to discriminate and to understand what the teacher is presenting. Videotape equipment is useful for students with impaired sensory channels.

If standarized tests are used, they need to be modified for use with special needs students. Changes may be needed in the spoken language, cultural content and concepts, reading level, and the size of print and numbers. The vocational education teacher can read tests out loud to partially sighted students and those with reading difficulties, and accept their verbal responses. Tests and student responses may also be taped. The use of graphics and pictures may add clarity to the testing situation of students with limited hearing ability.

Students with special needs will often perform best in situations where they can see and touch objects. Work samples assess their actual performance in a variety of simulated work tasks. For example, a student may be asked to take apart a motor and reassemble it. This enables the teacher to determine the student's manual dexterity, aptitude, and interest in mechanical work. Many school districts have developed comprehensive vocational assessment programs to diagnose and prescribe occupational training for special students. These assessment programs include a wide variety of test batteries which use an assortment of work samples. If your school system has such an assessment program you may be able to obtain an assessment report which details the student's physical and mental capacities, vocational interests, preferred learning modes, deficiencies in normal learning channels, and social adjustment skills. There are commercially available work sample systems which may be used in an assessment center to evaluate special needs learners, e.g. the JEVS, Valpar and Singer Vocational Evaluation System. (See Suggested Resources.)

You can also prepare your own work samples which measure a student's ability to perform specific tasks corresponding to the vocational skills you are teaching. This is the best indicator of the student's future performance in the class. To prepare a work sample, set up an area of the vocational laboratory where the student can perform a particular subtask, such as preparing a surface for painting or joining the corner of a wooden bookcase. Determine what the performance standards are for the particular subtask being used. You can obtain this information by being aware of performance standards acceptable in industry. Use a series of time trials to determine the average length of time required to complete the subtask. Plan to adapt the instructions by using demonstration, visual aids, or other appropriate techniques. Give the students instructions about how to perform the subtask and observe the students' performance. Note completion time, quality of the finished work, and students' procedural difficulties and abilities. During assessment, you will gain information about how the student perceives, follows directions, and performs. You will gain a better understanding of the preferred learning modes of the student and the problems the student may experience in your vocational education shop or classroom.

Student interest. Using test batteries and exposing the student to various occupations and work experiences help foster student interest in vocational education training options. Where possible, the "work tryout" approach should be used. Work tryouts are short periods of time spent either in a training program or at an actual job site in the community. Secondary level vocational education students may, for example, be permitted to choose from among several possible work tryout sites and spend several hours, to several days, performing actual job tasks. These real work experiences are invaluable for special needs students who have never been exposed to the world of work. Through work tryouts, students gain a great deal of useful information about their program options.

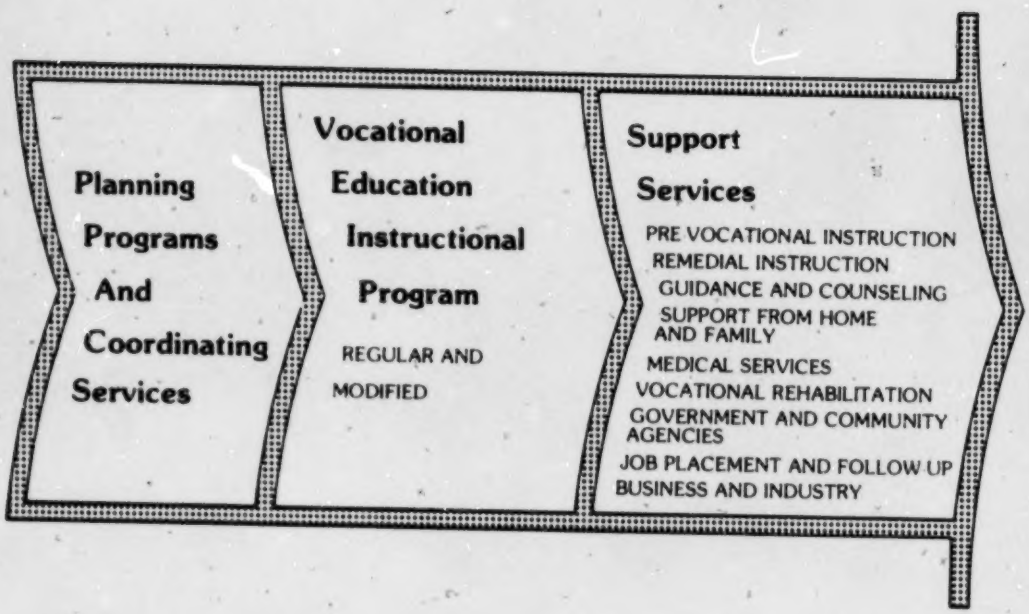
Student attitudes. Attitudinal assessment includes the evaluation of a student's emotional maturity and ability to function in an acceptable manner with peers and supervisors in both formal and informal settings. This type of assessment is usually based on teacher observations. The everyday interaction among teachers, students, and peers yields important information about the social adjustment of the students. It is important to understand certain cultural differences of special needs students. For example, some hispanic students may appear to be quiet and shy if they do not look directly at their teachers. To them, this behavior shows proper respect for adults. An understanding of such cultural factors is necessary if teachers are to help students adapt to the social setting of classrooms and shops. In addition, independent living skills such as grooming, money management, safety, and home maintenance are important to the "special" student's eventual capacity for surviving in the world of work. The student's need for assistance may be identified through home visits, consulting with other school personnel (such as the special education teacher who has had close personal contact with the student), or through direct contact with the student.

Vocational education teachers should not hesitate to get others involved in developing ways to assess their "special" students. In working with other staff, the vocational education teacher can use the following strategies:

- Prepare reports of student progress during the work exploration or job tryout periods.
- Make work samples that may be used by counselors or evaluators to determine the student's ability to perform certain job-related tasks.
- Provide immediate and continuous feedback to the student and others on student progress.
- Participate with other staff in the review of assessment results to determine the appropriate vocational placement and services needed for handicapped students.
- Participate in the individualized education program planning process to determine the vocational placement and services needed for handicapped students.
- Request further assessment for students that demonstrate a pronounced lack of ability or motivation to perform in the vocational education classroom.

Access to vocational education programs can only be achieved when the assessment process considers all of the environmental aspects and the students' abilities and needs.

PERFORMANCE



PERFORMANCE

Planning Programs

Individualized planning of vocational education programs and services is necessary for all students with special needs to enable them to perform successfully. The information that you, the vocational education teacher, will need for individualized planning is gained from the student's assessment which furnishes two important kinds of information: (1) any legal, social, or physical barriers; and (2) the student's abilities, interests, attitudes, capacity for work, deficiencies and competencies, and recommendations for the vocational education preparation of the student. Use of the assessment has two important purposes:

- Determining appropriate placements of students into vocational training programs
- Individualizing the instructional process to meet special needs

Determining the Best Vocational Placement

Determining the best vocational placement for students is a joint responsibility of the vocational education teacher and a number of other individuals who are concerned with the student's placement. At this time your input regarding skill requirements for your area of vocational education training and the type of support services required to assist the student in the program is invaluable. Your familiarity with the student's background, interests, and abilities is vitally important to the planning team. You can make appropriate recommendations and advocate the student's entrance into the program when appropriate assistance can be provided. In addition, your involvement with others will provide you with new insights and information to help you become more effective with your special needs students and assure their improved performance.

Individualizing the Instructional Process

Individualizing the instructional process for special needs learners involves the following:

- Shaping methods and materials to the learning styles of the students
- Providing support services
- Using on-going assessment techniques and providing continuous feedback to students, other concerned staff, parents, and support service personnel

There are several important steps in individualizing the instructional program for "special" learners:

1. Identify the student's vocational goals so that the student has a saleable skill at the end of the training period.

2. Set specific performance objectives that will enable the student to reach the vocational goals. These goals may be reached by making an occupational analysis of your vocational area to determine the skills, knowledge, and attitudes that are required for the job functions of entry level positions and identifying specific performance objectives that are related to all job functions via task analysis. The process of task analysis includes—

   - setting performance objectives required for students to learn;
   - determining resources necessary to enable the students to learn each objective;
   - determining the steps in the learning process for each objective;
   - sequencing steps in logical order;
   - determining what knowledge or skills are required to learn the steps;
   - evaluating student progress; and
   - altering steps or sequence as needed.

3. Plan the scope of the individualized instruction by determining how many performance objectives are realistic, the approximate amount of time required to complete each objective, and the student's aptitude and prior experience.

4. Determine what methods, materials, resources, and support services are necessary.

5. Determine the assessment techniques to use in monitoring the student's progress.

You may wish to refer to the section on the vocational education instructional program for specific teaching methods, materials, and equipment to use in an individualized vocational education program. Special needs students will benefit greatly from your efforts to individualize the instructional process. Individualized instruction is personalized; it allows students to gain mastery of a skill which is of immediate practical value to them.

The Vocational Planning Team

In planning the programs and services needed for your "special" students, you should involve a variety of people—vocational and academic teachers, administrators, special education teachers, vocational counselors, parents, service providers, and the special needs students themselves. Along with you, those you involve directly comprise the planning team. Others who may contribute to the planning process are the vocational rehabilitation counselor, the social worker, speech therapist, craft advisory committee, and the job placement coordinator.

To ensure cooperative working relationships among members of the planning team, the vocational teacher will want to make sure that—

- all persons involved in planning the vocational program clearly understand their roles in relation to the other members of the planning team;
- input is solicited from each team member of every student;

- the communication process is clear and precise and jargon words are avoided;
- decisions made on the student's program are supported by all members of the planning team;
- future working relationships are outlined in such areas as scheduling, provision of support services, and involvement of other personnel in the vocational training program; and
- follow-up meetings are scheduled to monitor student progress and recommend needed changes.

Coordinating Services

The vocational teacher plays a key role in establishing cooperative efforts to make appropriate support services available to special needs learners. Administrative involvement is an important first step. The development of an information sharing and referral network is a good strategy for fostering cooperation among administrators, teachers, counselors, and service providers. This network may be based upon formal and informal contacts.

Formal planning meetings can be used to discuss student progress and to identify and solve student problems. You may plan to meet weekly with remedial math and English teachers to develop joint instructional plans. Informally, you can exchange helpful information in teachers' meetings and during preparation periods.

Team efforts among teachers and other personnel can be very effective in meeting the needs of special needs learners. The "support services team" may include special education teachers, vocational teachers, aides, vocational evaluators, counselors and psychologist, and a support services coordinator. The team should meet frequently to make joint decisions about content and approach of programs and services. For example, you may work with special education teachers who provide reading and math remediation and social skills development for special needs students who are mainstreamed into your classroom. In addition, you may work with teacher aides who can help you by providing one-to-one assistance to your students, often reinforcing those skills taught by special education teachers.

You can obtain information and insights from the vocational counselor or special education teacher. Invite them to visit your classroom and observe special needs learners who are having difficulty. They can assist you to restructure your teaching approach. You may also wish to observe other teachers working with your students. Teaming with other professionals links the vocational teacher to persons who can provide additional assistance in teaching special students. Teaming also forges a cooperative network to implement the vocational education instructional program.

Vocational Education Instructional Program

Students with special needs may receive the following types of vocational education instruction, depending upon which type of work will be most advantageous for them.

Regular vocational instruction—All students, both regular and special needs, participate in the basic vocational education program. Students in the class have the same performance

criteria. However, all students, but in particular the "special" students, may receive support services to facilitate their performance in the regular vocational education classes. Examples of these support services are remedial instruction, speech therapy, physical modification to the work station, child and day care centers, transportation, and subsistence allowance.

Modified vocational instruction—The regular vocational education program is modified to meet the needs of "special" students. These modifications can be made to the physical environment and/or teaching methods to accommodate these special needs students. "Special" students may require more hours of vocational education training than most regular students, when learning vocational skills. The content to be learned may need to be adjusted to match student ability levels. Some modified programs may include only students with similar learning problems.

To maximize the performance of your special needs students whether they are in regular or modified programs, it is important to use appropriate teaching methods, techniques, materials and equipment. The materials may be different from those you use with your regular students. For example, cultural dissimilarities, differences in language, and restriction of auditory or visual channels must be considered when you select instructional methods and techniques. Finding the appropriate approach depends on your ability to—

- recognize the learning styles of the students;
- match student needs with methods and materials; and
- find the time and resources to put the planned methods/materials into practice.

Remember, you have a team of support persons to call upon. Do not attempt to provide all services yourself, but do know where to locate the necessary help.

Teaching Techniques and Methods

It is important to individualize your instruction and use a variety of techniques that are adapted to the individual learning styles of your students. The following are several approaches which can be used to individualize instruction:

- One-on-one instruction
- Small group instruction
- Programmed instruction
- Individualized assignments
- Using peers who have already accomplished the desired skills
- Using volunteers, retired persons,or classroom aides

The best way to teach disadvantaged students is through individualized assignments. Each student should have an individual assignment folder in which you, the teacher, outline tasks that focus on learning deficits. Assignments should include simple tasks and vocabulary drills on difficult words. The assignment should be designed to be completed within the class period so that the teacher can provide immediate feedback. Successful experiences need to be built into all assignments.

The following are some suggested instructional techniques for students with deficiencies in specific areas. They may be adapted or modified to meet the needs of your "special" students.

- *Limited Reading and Writing Ability*

  Objective: To enable students to understand the relationship between written words and their true meanings.

  Methods: Practice brief reading exercises using short sections of written material. Relate vocabulary to concrete objects. Simplify the vocabulary in the material so that it is related to words and concepts that students already know. Use teacher demonstration to show relevance of the material to vocational success. Supplement written materials with the use of audio-visual aids.

- *Low Levels of Aspiration*

  Objective: To promote feelings of self-worth in students.

  Methods: Supply role-models with whom students can identify by developing community contacts in career areas of interest to students. Utilize role play and work simulation strategies in which students have "hands-on" experiences with machinery and equipment. Give students tasks to perform which are graded to their level of performance.

- *Short Attention Span*

  Objective: To help students focus on the completion of tasks.

  Method: Provide short periods of work for a single task and include active "hands-on" experiences. Material should be graded to each student's level to maintain interest and increase chances for success. Allow for sufficient practice.

- *Difficulty in Dealing With Abstract Ideas*

  Objective: To help students view concepts and relationships in an abstract as well as concrete manner.

  Method: Base instruction on experience wherever possible and work from the concrete to the abstract. Clarify relationships between concepts and actual work experiences during instruction. Allow for sufficient practice/repetition of tasks.

- *Limited Self-Direction*

  Objective: To provide order and structure in the learning environment.

  Method: Be firm, consistent, and clear. Create an atmosphere of low tension by reducing overly competitive, aggressive behavior. Simplify instructions and repeat directions and information frequently. Develop rules cooperatively and limit them to basic necessities. Be sure students understand the

reason why rules are necessary. Paraphrase directions, if needed, and accompany them with visual descriptions.

- *Motivated More by Outside Forces than Internal Ones*

  Objective: To encourage desirable behaviors through reinforcement and extrinsic rewards until students no longer require it.

  Method: Use a gradually declining system of rewards, such as free time for work well done, which encourages students to experience internalized satisfaction.

- *Poor Self-Concept and Fear of Failure*

  Objective: To design instruction that allows students to experience frequent success.

  Method: Use short, progressive steps that show accomplishment. Point out and utilize students' strengths and encourage participation by students. Be consistent and fair with all students.

- *Dependent on One Sense More than Others*

  Objective: To encourage students to use all senses in the learning process.

  Method: Investigate physical causes for dependency on one sense. Develop experiences and course material that require students to use a variety of senses. Help develop their strongest sense if they cannot develop all senses.

Examples of ways to present course material using a variety of sensory modes include the following:

- Field trips
- Work sample
- Educational television
- Commercially prepared and teacher-made audio/visual materials (diagrams, pictures, tapes, slides, movies, etc.)
- Games—For example, recall/review games like crossword puzzles are good for slow learners to build vocabulary and recall facts
- Simulated experiences—For example, the student may participate in a mock interview for a job by role playing the job applicant. The interview can be videotaped and played back so that the student has direct performance feedback
- Demonstration—For example, one machine shop instructor relied almost exclusively on demonstration to instruct a Spanish speaking student in the use of the engine lathe. The student observed the teacher operating the machine and then was given the opportunity to work on the machine with supervision by the shop teacher. Supervision was decreased as proficiency increased

- "Hands-on" activities using concrete objects—For example, to increase coordination in students with poor eye-hand coordination students may practice pounding nails into a board using a hammer

- Sign language for the deaf using interpreter services

- *Antisocial Behavior*

  Objective: To teach socially acceptable behavior to students with behavior problems.

  Method: Consult with support service personnel as to physical/psychological causes for antisocial behavior. Use role play and simulations to depict acceptable behavior. Provide energy outlets such as "hands-on" activities or review/recall games and keep record of behavior. Involve students in self-evaluation. Use behavior management techniques.

  Follow these steps in the behavior management process:

  1. Determine what the student's average behavior patterns are by keeping a log of the observations.

  2. Select the behavioral goals that are reasonable for the student to accomplish in a set time frame. This requires a knowledge of the antisocial or nonadaptive behavior that is to be reduced, the desired behaviors that are already part of the student's behavioral pattern, and ways to determine if the goals have been accomplished.

  3. Assign a negative or positive reinforcer to the behavior(s) you want to enhance or eliminate. A positive reinforcer may be praise for a student who has followed verbal instructions. A negative reinforcer may be ignoring a student who daydreams or does not follow directions.

  4. Inform the student about the possible consequences of all types of behavior.

  5. Continuously reinforce the desired behavior until it becomes clear that the student has permanently altered previous responses.

  An effective way to eliminate the acting out behavior of some mildly retarded students in a modified vocational education program, is through use of the *layoff procedure*. This involves removing a student from the rest of the class to spend twenty or thirty minutes in an isolated area. The student must then demonstrate a willingness to cooperate by acting in an acceptable manner.

  Peer pressure may also serve as a reinforcer. Good behavior points could be exchanged for a period of time when the class could engage in rewarding activities such as a field trip. When any of the students do not behave well, the class loses points. The students watch each other to make sure that they do not lose points.

Additional teaching strategies that may be used with special needs students include—

- using activities that center on those goals students value most;

- presenting materials in bilingual modes;

- using diagnostic techniques to match student learning style with instructional methods; and
- breaking tasks into small competencies which can be easily learned and accomplished.

Curriculum Materials and Equipment.

Successful teaching requires appropriate materials and equipment. Some effective materials have been developed commercially to help you meet the needs of special learners. In order to discover the materials on the market that would be appropriate in your particular situation, you should subscribe (or request the school library to subscribe) to professional journals that present information about new materials for "special" learners. Write to book publishing companies to find out about new titles. Also, contact and make use of local and national councils or organizations that provide resources for "special" students in vocational education. The following are examples of specialized materials and equipment that can be purchased:

- Vocational education books written in a variety of languages
- Vocational education materials written in English and in a second language
- "Talking" books
- Posters depicting successful special needs individuals in jobs
- Vocational education flash cards
- Vocational education materials written with simplified language and low reading levels

Buying commercially developed materials can be costly. You must determine whether they will be appropriate for your particular school setting and your special needs students. You may decide to modify available materials or create new ones. Materials should be modified or developed according to—

- appropriate reading level;
- size of numbers and letters;
- aesthetic appeal;
- cultural content;
- equity;
- language differences; and
- vocabulary words related to skill area.

For example, auto mechanics teachers can create worksheets (to accompany already existing written materials) using simplified, low reading level language. A local industrial source can provide visual diagrams of car engines and automatic parts. The teachers should relate mechanical vocabulary words to the diagrams. Teacher aides may reinforce the material in one-on-one sessions with the students.

It may be necessary to physically modify tools, equipment, and work stations for some students. Always consult with your administrator and seek help from other professionals before you redesign your classroom, laboratory, or shop. Modifications may include lowering benches,

widening seating areas, or providing signal lights for the deaf. Installing long handles on printing presses simplifies the printing task and makes printing accessible to students in wheelchairs. This modification is also useful for students who have problems with gross motor coordination. Raised dots on thermometer settings can help blind students to use them. Putting masking tape on sewing machines aids students who have difficulty with measuring seam widths.

Appropriate modifications in your teaching techniques, classroom materials, and equipment will improve the performance of your special needs students. The provision of support services also affects student performance. Following is a description of a variety of support services you may provide, or use, to help your special needs students who are in regular or modified vocational education programs.

Support Services

Support services are the additional resources that supplement the vocational education program and provide assistance to learners with special needs to help them improve their performance in the program. Coordination efforts are frequently required for the provision of many support services such as scheduling classes, arranging transportation, or establishing communication linkages. The coordination efforts can be greatly enhanced when the vocational education teacher and support service providers plan together for the students' overall educational experience. Assessment data is used to identify the students' requirements for support services. This information also furnishes baseline data for evaluating the effectiveness of these services in upgrading the students' performance. Every aspect of the procedures presented here has a strong relationship to the provision of support services. The following chart is designed to assist the vocational education teacher by identifying the kinds of services available and the benefits to special needs students. While it is true that *all* students can benefit from support services, there are circumstances and events which make one student a more likely candidate to receive such aid than another student.

Support Services To Enhance Student Performance

Services Rendered by Teachers	Benefits to Students
Prevocational Instruction	
Includes:	Permits students to—
• Daily Living Skills	• learn better grooming skills • learn appropriate attitudes and actions • learn clearcut guidelines and expectations for behavior in the classroom and shop • become motivated to good behavior Peer reinforcement is usually an effective motivator. One example of this is the use of a point system in which the class earns or loses points toward special privileges as a result of the

Prevocational Instruction (continued)

Includes:	Permits students to—
	behavior of individual members. Students tend to "keep each other in line" in order to earn special privileges that they value highly.
• Financial Responsibilities	• become better consumers
• Manipulative Skills	• be able to use hands for grasping and using tools
• Learning Skills	• become more skillful in following directions
• Interpersonal Skills	• become better employees because they learn how to work with other people
	• participate in discussion groups in which open and honest communications are encouraged Topics for discussion may include cultural values, personal dignity, attitudes toward the differences of others, work ethics, decision-making, and occupational roles.
• Career Information and Exploration	• become more knowledgeable about what careers they can follow, how career ladders work, and what is necessary to be successful in a selected occupation
	• take field trips to industries related to their area of vocational training
	• learn from retired workers or employers who serve as role models, speakers, or personal mentors
	• "shadow" workers in various job settings and observe their routine job duties
	• participate in discussion sessions on topics relating to career choice
	• learn from photographs, slides, or films which provide visual information about occupations
• Job Seeking Skills	• become proficient at filling out application forms and interviewing

Remedial Instruction

Includes:	Permits students to—
• Review and Remediation in Basic Academic Skills	• brush up on/practice reading, writing, and math skills
	• receive tutorial assistance from other students, parents, volunteers, teachers, paraprofessionals, and others
	• receive tutoring assistance from their own teachers Tutoring assistance may be provided via, the use of modified materials appropriate to the students' reading level, repetition, word drills, praise and encouragement related to the students' progress, pacing, and matching students with peers to work on areas of difficulty together
	• work independently in study carrels or isolated work areas in the classroom or laboratory with individualized work sheets
• Study Skills	• understand the purpose of good study skills by using instructional audio-tapes and slides
• Special Equipment and Materials	• have opportunities to progress at their own pace

Guidance and Counseling

Includes:	Permits students to—
• Values Clarification	• understand their own values in relation to others who come from different backgrounds
• Interaction With Others	• learn from others who serve as role models
	• interact with peers and teachers
• Personal Problem Solving	• discuss with peers or models fears/frustrations of making career choice
	• receive help in solving personal problems that seem insurmountable
• Decision-Making	• gain information about resources, services, and training opportunities that are available
	• learn about alternative career options
	• learn skills involved in making decisions/choices

Support From Home and Family

Includes:	Permits students to—
• Volunteer Services Performed by Parents	• recognize that parents do care
• Serving as Role Models	• view their parents and family as persons to emulate
• Joining Advocacy Groups	• respect their families and themselves
• Providing Reinforcement at Home for Ideas and Skills Students are Learning	• talk about what they are learning in school and boast of their accomplishments.

Medical Services (Services are not given by the teacher, but it is the teacher's responsibility to see that these services are provided to the student. When students are in good health, they are better able to cope with situations around them.)

Includes:	Permits students to—
• Emergency Medical Care	• have unusual circumstances of a health nature cared for before they become chronic problems.
• Dental Care	• enhance appearance and health with teeth that are in good repair
• Provision of Eye Glasses	• better perform work when they can read; eye coordination permits better manipulation
• Hearing Aids	• perform more accurately when they can hear teachers' comments
• Psychological Services	• enter and perform better in the vocational education program with fewer worries
	• keep home life on an even keel so that the student can concentrate on the training.

Vocational Rehabilitation Services (These services are not rendered by the teacher, but the same responsibility the teacher has for medical services applies here. The teacher must know where to go to get help.)

Includes:

- Diagnosis, medical treatment and physical restoration, provision of prosthetic devices such as wheel chairs, independent living skills, vocational evaluation, counseling and training, special aids, tools, and supplies, leaders, transportation, financial assistance, on-the-job training, placement, and follow-up

Permits students to—

- have disabilities verified and get help to break down barriers to employment.

Government and Community Agencies (These groups offer services to disadvantaged and handicapped. The teacher must be aware of these services so that the student receives help when needed.)

Includes:

- Public health services, state employment services, welfare, the Housing Authority, Social Security, Veteran's Administration, Bureau of Indian Affairs, Employment Assistance Divisions. Financial assistance, and loans may be obtained from the last three service providing agencies for postsecondary vocational training.

Permits students to—

- have adequate housing, financial help from Social Security (if needed), and loans for tuition

Other services of specific nature fit individual needs such as services for American Indians, veterans, etc. When individual concerns are provided for, the student can perform to maximum ability.

Other agencies found in many communities include:

- Independent living centers, mental health centers, social services, Red Cross, American Legion, Goodwill Industries, Kiwanis, Lions Club, Big Brothers, YMCA/YWCA. There are numerous other advocacy groups, organizations, and professional groups which you can locate through your local Chamber of Commerce or telephone book.

Job Placement and Follow-Up

Includes:	Permits students to—
• Close contact with business and industry to assist students in finding jobs	• recognize that the teacher does care that a job is available when training is completed
• Mock employment interviews using role play and video tape equipment	• learn interviewing skills with feedback on their performance
• Assistance to employers on how to adapt or modify jobs/work stations appropriate for students	• have wider opportunities for employment with employers who have knowledge about their handicap
• Advertisement/promotional techniques to make employers and community members aware of students' abilities	• become known to local employers, thus increasing their chances for future employment
• Involvement of craft advisory members from industry who provide opportunities for students to arrange practice and real interviews	• become more at ease if they have an opportunity to practice interviews in a business setting
• Follow-up evaluation	• feel secure, knowing that the teacher or someone from the vocational education school cares, and gives the employee a chance to discuss any issues of concern, and also gives them an opportunity to tell about their successes.

Business and Industry. (Contacts in this sector can be most helpful.)

Includes:	Permit Students to—
• Sponsoring field trips, serving as role models, providing work stations for cooperative work experience programs, speaking to classes, serving on advisory committees, assisting in curriculum development, providing publicity. The local chamber of commerce or local businesses may even provide funds or materials to your vocational education program.	• interact positively with members of the business community. Some disadvantaged and handicapped students will get a more realistic view of the labor market than they presently hold due to cultural or physical isolation.

The teacher's role is very important. You can obtain many important support services if you do the following:

- Know the students' needs. Teacher observation of students can be quite revealing. You may, for example, notice a student squinting at the blackboard or turning in incomplete assignments. From these clues you conclude the students needs. A referral to appropriate medical services should assist the student to discover and correct the visual loss.

- Identify the school and community resources which are available and appropriate for your students. The following information is necessary:

  —Description of services

  —The eligibility requirements for the recipients of the service

  —Service provider: name of contact person, address, telephone number

  —Cost of service

  —Hours that service is available

  —Referral procedures and regulations governing service delivery

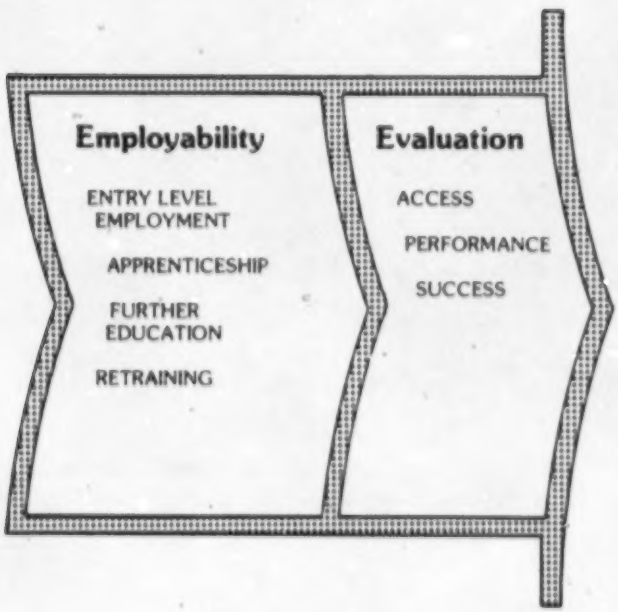
- Make a resource file of support services available in your community.

- Inform the students and their parents about the services that they may need.

- Develop linkages with contact persons who are key service providers. Keep them informed about your students' needs.

In summary, whether the support services are provided by you, or other service providers, your special needs students will be the beneficiaries. Their success will be reflected by the evaluation results, which are discussed in the next chapter.

SUCCESS


Employability
ENTRY LEVEL EMPLOYMENT
APPRENTICESHIP
FURTHER EDUCATION
RETRAINING
Evaluation
ACCESS
PERFORMANCE
SUCCESS

SUCCESS

Employability

The goal of the entire "Procedures For Vocational Education Teachers Serving Special Needs Students" sections is to prepare students to be "job-ready." Job readiness means that special needs students not only possess vocational education skills, but have social skills necessary for the work environment, including a good self-concept and a belief in their capability as individuals. Their vocational education preparation must include experiences which will help them to develop these essential qualities.

Alternatives available to your students after they complete the vocational education program are: entry-level employment, apprenticeships, further education, and retraining. You, and other support service personnel, must be aware of these alternatives and should assist students to make job choices or alternative plans. This assistance should extend to students who are no longer in your programs, but who need encouragement and support as they make their way in the world of work.

The special needs students you prepare for employment will measure success by how well they can do a job and adjust to the work environment. These "special" workers recognize they can be successful, and there is room at the top of the work ladder, if they want to continue to study and improve the quality of their skills.

Entry-Level Employment

The students with special needs can be employed because they are physically and mentally ready to be hired for work. They have acquired basic skills which permit them to meet minimum requirements for the specific kind of work or the specific position of employment. Any adjustment in facilities or equipment has been made, including safety precautions, so that the employee will feel safe and secure at the work station. The teacher, or other staff members from the training institution, should visit employees on the job to ascertain that all is well and that individuals are functioning to the best of their ability.

Apprenticeships

In the past, students with special needs have had great difficulty entering apprenticeships. Grants from the Department of Labor to unions and companies now give new incentives for hiring persons with special needs. Now the disadvantaged, handicapped, persons with limited-English speaking ability, women, and ethnic/racial minorities are finding success and satisfaction in apprenticeships. It is the responsibility of the teacher and the support service team to encourage all their students to succeed in the basic skills, so that they can enter apprenticeship training. Again, the vocational education staff need to follow-up the progress of individuals and to offer assistance when necessary.

Further Education

The challenge of moving up the career ladder may be a new experience to many persons with special needs. Encouragement and insight must be provided by the school support team. Some persons with special needs have an image of themselves that is less than positive. The real challenge to members of the support team is how well they can encourage and cajol students into developing a positive self-image that permits the individual to set sight above entry-level jobs. By encouraging individuals to continue education in night school, at a postsecondary institution, at an institution of higher learning, or in courses offered within the company for which they work, these individuals' image of their own capability improves. Once individuals think of themselves as having additional capacity to improve, the road to higher success is defined.

Retraining

In working with persons who have special needs, there will be instances—just as with any individual—where retraining appears to be necessary. The retraining may be needed because conditions in the work place are so different from the training stations that it creates pressure and stress, or the position may be discontinued after a short time. The individual in such a situation will need to be trained in another skill or for another work operation. In a more positive situation, the individual may perform with such accuracy and perfection that he or she is ready to move on quickly. Because of these reasons the teacher and other support personnel must be concerned with retraining. A well planned program and evaluation, including follow-up, will provide needed information for retraining.

Evaluation

Evaluation refers to the task of making judgements about the worth or value of a student or program. It determines the extent to which previously established student program objectives have been attained. It is an ongoing process that affects improvement in all of the procedures. Evaluation of vocational education programs serving special needs students is essential to program improvement. The data collected through evaluation will provide a sound base on which you, the vocational teacher along with administrators and other personnel can make decisions about the programs that affect the access, performance, and success of your special needs students.

As a vocational education teacher, you have a key role in the evaluation process. You are concerned about program effectiveness and want to know if you are doing a good job in preparing students for employment. You want to know what works in your class to help students perform, and what does not; what to change and what not to change.

Administrators, too, must be involved in program evaluation. As the demand for accountability of school programs increases, administrators must be concerned with such things as compliance with laws, accessibility of programs, and numbers of students placed in jobs. Other persons who participate in, or are affected by, vocational education programs serving "special" students should also be involved in the evaluation process. These persons may include other teachers, parents, employers, counselors, support service personnel, and the special needs students themselves. Evaluation, therefore, should be a "team" effort.

Before you evaluate any component of your program, an evaluation plan is needed, and all persons involved should consider the following:

- Questions you want answered about the effectiveness of your programs
- Type of information to best answer the evaluation questions
- Which person(s) should conduct the evaluation
- What criteria to use to determine program effectiveness
- How findings will be used to effect change

Evaluating Student Access

Increased access into vocational education programs by special needs students is an important criterion for determining the effectiveness of your programs. It is especially important to administrators who are concerned about compliance with legal mandates. To evaluate the accessibility of programs to students, data should be collected on such variables as—

- enrollments of special needs students in regular and modified vocational education programs;
- placement of special needs students in a variety of nontraditional vocational classes;
- opportunities for exploration and job-tryouts in a variety of vocational programs;
- compliance with legal guidelines; and
- physical modifications of buildings, work stations, and equipment to accommodate handicapped students.

You can contribute to this data collection in a variety of ways—maintaining student records, inspecting the facility/classroom/work station for physical barriers, and soliciting, and recording students' views of their vocational education training options. Whatever strategies you use, remember that the results are to help you and others make programs more accessible.

Evaluating Student Performance

You want evidence that your programs make a positive difference in students' abilities, interests and attitudes. The following variables are often used when evaluating student performance:

- Grades on functional skills tests
- Scores on vocational attitude/interest inventories
- Awareness of self
- Accuracy and speed at performing vocational tasks
- Class attendance
- Willingness to work and assume responsibility

- Ability to get along with others
- Ability to make decisions

Strategies to collect student performance data may include these:

- Written pre-and post-tests to measure students' accomplishments in knowledge/understanding of specific content covered in the course

- Direct observation of student performance related to vocational educational skill, attitude towards training, interest in vocational education training, interpersonal skill, decision-making ability, and motivation to work

- Teacher checklists to monitor rate of progress, speed and accuracy in performing tasks

- Formal and informal surveys of other personnel who work with your students

As you collect your evaluation data, review your objectives as outlined in your lesson plans to determine their appropriateness for your special needs students. This will help you to improve your program to better meet your students' needs. For example, in a typing class, if the objective is to have the student type forty words per minute by the end of the first semester, and your physically handicapped students are not able to achieve this level, then check to see if this objective is realistic for them. Possibly they can achieve the speed if given more time. You could suggest an extra hour of typing practice during their study hall time. Often, handicapped students can achieve skill mastery if allowed more time for practice.

Evaluating Student Success

A follow-up study of former special needs students will provide information needed to evaluate their success in terms of obtaining and maintaining employment, further education, or retraining. Variables used when evaluating student success include the following:

- Job placement rates
- Type of job obtained, e.g., is it related to vocational education training?
- Job satisfaction of employees
- Employer satisfaction with employee
- Length of time elapsed between school and employment
- Salary
- Rate of advancement on the job
- Apprenticeship placement rates
- Amount and type of further education/retraining

Remember, a fundamental reason for evaluation is to seek program improvement. Therefore, a follow-up study should be used to collect information from *students* concerning—

- difficulties experienced in making the transition from school to work;

- the value of previous vocational education training;

- the usefulness of related instruction and support services provided during previous training;

and from *employers* concerning—

- adequacy of vocational education training for required on-the-job performance;
- adequacy of special needs employees compared to other new employees; and
- recommendations for vocational education program improvement.

This type of information will be very useful to you as you revise and improve your existing programs to benefit current and future students.

Conducting a follow-up study may be done via a *personal interview*, a *telephone interview*, or a *mail survey*. The method used depends upon the individual. For example, the telephone or personal interview should be used with persons who cannot read English but can speak it. A hearing impaired student may respond best to a mail survey. Whatever method you use, all persons involved in the evaluation should have input. The results of the follow-up should also be reviewed by all vocational education staff members and support service personnel.

As you read this section on evaluation, you can see how evaluation is interrelated with all components of the procedures. It provides information which you can use to improve your program to better meet the needs of your "special" students. It is a continuous process that involves all persons who want to provide quality education for special needs students.

SUMMARY

The "Procedures For Vocational Education Teachers Serving Special Needs Students" outlines the vocational education teacher's role in providing quality vocational education programs for special needs students. The vocational education teacher assesses students, plans students programs, coordinates services, provides auxiliary support services, and evaluates the program and the student. The importance of teacher involvement in all areas of the procedures is to enhance student access, performance, and success in vocational education programs as described. Cooperation between teachers, administrators, support service personnel, and others is essential if they are to function effectively.

Vocational assessment of students should be comprehensive and should be adapted to meet the individual needs of the students. Teachers need the results of the assessment to help place students in appropriate instructional programs, to plan individualized educational programs to meet individual student needs, and to coordinate all the necessary support services that are essential to an individualized program. Planning and coordinating programs and services must be a continuous effort and must involve the cooperation of many persons if it is to be effective. Assessment and evaluation data must serve as a basis for making decisions for planning. Special needs students may be placed in regular or modified programs. Teachers must modify their instructional methods, materials, and equipment to maximize students' opportunities for successful performance, whether they are placed in regular or modified programs. Assessment data should serve as a basis for program modifications.

Based on assessment and evaluation data, support services need to be provided to special students to supplement their instructional program. Teachers may be called upon to provide the services themselves or, often, will be responsible for referring students to others who will provide the needed services.

As a result of successful implementation of the procedures, special needs students should be prepared for employment, continuing education, or retraining. In preparing "job-ready" students, teachers must be concerned both with vocational skill development and social skills to adapt to the work environment.

Program evaluation helps to determine the effectiveness of the procedures in increasing program accessibility, student performance, and student success. A fundamental reason for evaluating programs is to provide information for program improvement. Evaluation is a continuous process and must involve all persons who participate in, or are affected by, vocational education programs for "special" students.

CHAPTER III

SUGGESTED RESOURCES

Articles and Books

Albright, Leonard. *Administering Programs for Handicapped Students.* Professional Development Series, No. 3. Arlington, VA: American Vocational Association, 1979. (ED179 770)

Appleby, Judith A., ed. *Training Programs and Placement Services: Vocational Training and Placement of the Severely Handicapped.* Salt Lake City: Olympus Publishing Company, 1978.

Barmettler, Frank. *Career Advisement with the Disabled: Youth Employment and Training.* Phoenix, AZ: Vocational Education Division of the State Department of Education, 1978.

Birch, Jack W., and Johnstone, B. Kenneth. *Designing Schools and Schooling for the Handicapped.* Springfield, IL: Charles C. Thomas Publisher, 1975.

Brolin, Donn E., ed. *Life Centered Career Education: A Competency Based Approach.* Reston, VA: The Council for Exceptional Children, 1978.

Brolin, Donn E., and Kilstoe, Oliver P. *The Career and Vocational Development of Handicapped Learners.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1978. (ED 166 419)

Davis, Sharon, and Ward, Michael. *Vocational Education of Handicapped Students: A Guide for Policy Development.* Reston, VA: Council for Exceptional Children, 1978.

Federal Register. Monday, October 3, 1977, Part II (Rules and Regulations for the Education Amendments of 1976, Vol. 42, No. 191). Washington, DC: U.S. Government Printing Office, 1977.

Foster, June G.; Szoke, Clair Olsen; Kapisovsky, Peggy M.; and Kriger, Leslie S. *Guidance, Counseling, and Support Services for High School Students with Physical Disabilities: Visual, Hearing, Orthopedic, Neuromuscular, Epilepsy, Chronic Health Conditions.* Cambridge, MA: Technical Education Research Centers, Inc., 1977.

Frost, Joe L., and Hawkes, Glenn R., eds. *The Disadvantaged Child.* New York: Houghton Mifflin Co., 1966.

Gordon, Carla; Kells, Frank; and Kiser, Joni, eds. *Directory of Specialized Resources for Blind, Deaf, and Deaf-Blind Persons in Arizona.* Phoenix, AZ: Arizona Advisory Committee for Deaf-Blind Persons, Arizona State Services for the Blind, Fall, 1978.

Gill, Douglas H., and Scott, C. Paul. "A Practical Model for Mainstreaming Handicapped Learners in Vocational Education." *Journal for Vocational Special Needs Education* I (Apr. 1979): 3-7.

Hughes, James H. *Mainstreaming the Handicapped in Preparatory Occupational Education Programs in North Carolina.* Chapel Hill, NC: System Sciences, Inc., 1978.

The Journal for Vocational Special Needs Education: Entire Inaugural Issue, Vol. I, No. I, October, 1978.

Kells, Frank, ed. *Acronyms In and Around Blindness/Deafness/Rehabilitation Services in Arizona. (A guide to the" Alphabet Soup of the day)."* Phoenix, AZ: Arizona Department of Economic Security, Rehabilitation Services Bureau, Spring, 1978.

Kemp, Barbara H. *The Youth We Haven't Served, A Challenge to Vocational Education.* Washington, DC: Office of Education, 1966.

Kowle, Carol P. *Job Placement and Adjustment of the Handicapped: An Annotated Biblioigraphy.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED173536)

Kumer, Vasant. *Handicapped Persons in Wisconsin's Vocational, Technical, and Adult Education Districts: Assessment of Educational Techniques and Identification of Barriers.* Madison, WI: Wisconsin Vocational Studies Center, University of Wisconsin, 1977.

Lennon, Thelma, ed. *Guidance Needs of Special Populations.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED173535)

Macer, Richard A. *Sensitizing Vocational Educators to Effective Instructional Strategies to Serve Special Needs Persons: Final Report Proceedings.* Cleveland, OH: Cleveland State University and the Ohio Department of Education, Division of Vocational Education, 1978.

Macer, Richard, and Buffer, James. *Dimensions of Vocational Education to Serve Special Needs Persons.* Cleveland, OH: Cleveland State University and The Ohio Department of Education, Division of Vocational Education, 1978.

McKinney, Lorella A. and Seay, Donna M. *Development of Individualized Education Programs (IEPs) for the Handicapped in Vocational Education.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED173534)

McMurrin, Sterling M., ed. *Functional Education for Disadvantaged Youth.* Supplementary Paper No. 32. New York, NY: Committee for Economic Development, 1971.

Moorman, Jerry, ed. *Vocational Education for the Handicapped (A Selected Resource Guide).* Jackson, MS: Research and Curriculum Unit for Vocational-Technical Education, Mississippi State University, 1979.

National Center for Land and the Handicapped. *Special Report-Opening the Classrooms: Assuring the Right to an Appropriate Education.* Washington, DC: National Center for Law and the Handicapped, 1977.

The National Center for Research in Vocational Education. *IT ISN'T EASY BEING SPECIAL "I Like You When I Know You: Attitudinal Barriers to Responsive Vocational Education For Handicapped Students."* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED181319)

The National Center for Research in Vocational Education. *IT ISN'T EASY BEING SPECIAL "Let's Find the Special People: Identifying and Locating the Special Needs Learners."* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED181321)

The National Center for Research in Vocational Education. *IT ISN'T EASY BEING SPECIAL "Let's Work Together: Intervention Strategies for Learners with Special Needs."* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED181320)

The National Center for Research in Vocational Education. *IT ISN'T EASY BEING SPECIAL "Resources: Agencies and Organizations That Serve Special Needs Learners."* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED181323)

The National Center for Research in Vocational Education. *IT ISN'T EASY BEING SPECIAL "Resources: Materials for Special Needs Learners."* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979. (ED181327)

National Consortium on Competency-Based Staff Development. *Placement Series: Planning Pre-Employment Programs.* Washington, DC: Department of Health, Education, and Welfare, 1976.

New, Lloyd H., ed. *Institute of American Indian Arts Catalog, Revised Edition, 1978-1979.* Santa Fe, NM: Institute of American Indian Arts, U.S. Department of the Interior, Bureau of Indian Affairs, 1979.

Phelps, L. Allen. *Instructional Development for Special Needs Learners: An Inservice Resource Guide.* Urbana, IL: Department of Vocational and Technical Education, University of Illinois, 1978.

Phillips, Dennis, and Renzullo, Carmel. *Barriers and Bridges: An Overview of Vocational Services Available for Handicapped Californians.* Sacramento: California Advisory Council on Vocational Education, 1977.

President's Committee on Employment of the Handicapped. *Amicus: Nondiscrimination Provisions of the HEW Section 504 Regulations.* Washington DC: National Center for Law and the Handicapped, 1977.

Redick, S.S., and Lazell, K.M. *The Handicapped: Our Mission.* Washington, DC: Home Economics Association, 1978.

Resurge '79: Manual for Identifying, Classifying and Serving the Disadvantaged and Handicapped Under the Vocational Education Amendments of 1976 (P.L. 94-482). Washington, DC: Office of Education, Bureau of Occupational and Adult Education, Division of Vocational and Technical Education, September, 1979.

Saville-Troike, Muriel. *Bilingual Children: A Resource Document.* Papers in Applied Linguistics, Bilingual Education Series 2. Arlington, VA: Center for Applied Linguistics, 1975.

Taba, Hilda, and Elkins, Deborah. *Teaching Strategies for the Culturally Disadvantaged.* Chicago: Rand McNally & Company, 1966.

Texas Education Agency. *Handbook for Vocational Education for the Handicapped.* Lubbock, TX: Home Economics Instructional Materials Center, Texas Tech University, 1978.

Tindall, Lloyd W., and Gugerty, John J., *Least Restrictive Alternative for Handicapped Students.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1978.

Tindall, Lloyd, W.; Gugerty, John J.; and Crowley, Carol. *Modifying Regular Programs and Developing Curriculum Materials for the Vocational Education of the Handicapped.* Madison, WI: Wisconsin Vocational Studies Center, University of Wisconsin, 1978. (ED175533)

Urban, Stanley J., and Tsuji, Thomas, eds. *The Special Needs Student in Vocational Education: Selected Readings.* New York, NY: Arno Press, 1974.

U.S. Department of Labor, Manpower Administration. *Breakthrough for Disadvantaged Youth.* Washington, DC: U.S. Government Printing Office, 1969.

Weisgerber, Robert, ed. *Vocational Education: Teaching the Handicapped in Regular Classes.* Reston, VA: Council for Exceptional Children, 1978.

Weisgerber, Robert, ed. *Mainstreaming the Handicapped in Vocational Education.* Palo Alto, CA: American Institutes for Research, 1977.

Films and Film Strips

Belcher, James. *A Different Approach.* Manhattan Beach, CA: South Bay Mayors' Committee for Employment of the Handicapped, 1978.

This film deals with attitudes toward employment of the handicapped. It can be shown to a wide audience in a variety of settings: schools, industries, social service agencies, prevocational education classes, and government programs.

Contact: South Bay Mayors' Committee for Employment of the Handicapped, 2409 N. Sepulveda Blvd., Suite 202, Manhattan Beach, CA 90266.

Romero, Bodel. *Man in the Maze.* Tucson: Pima Employment and Training Consortium, 1978.

This film and film strip with cassette, deals with American Indian tribal structure, goals, social environment, and economics. It describes programs, access, and success factors for the indian population. This series can be shown to students on the reservations and in public school systems.

Contact: Bodel Romero, Director, CETA Programs, Tucson-Pima Employment and Training Consortium, 100 N. Stone, Suite 400, P.O. Box 27210, Tuscon, AZ 85726.

Commercial Work Sample Systems

JEVS Work Samples. Available from The Jewish Employment and Vocational Service (JEVS), 1913 Walnut Street, Philadelphia, PA 19103.

This system consists of twenty-four work samples that are useful in assessing individual worker characteristics among culturally different and disadvantaged persons as well as handicapped persons.

McCarron-Dial Work Evaluation System. Available from Commerical Marketing Enterprises, 11300 North Central, Dallas, TX 75231.

This system is used in evaluating handicapped persons. It provides information on cognitive functioning—the ability to integrate and to cope with new situations, sensory skills, motor functions, and emotional adjustment.

Singer Vocational Evaluation System. Available from the Singer Education Division, 80 Commerce Drive, Rochester, NY 14623.

This system was developed for use in assessing physically and mentally impaired persons; it measures motor coordination and perception.

Valpar Component Work Sample Series. Available from Valpar Corporation, 622 North Alvernon Way, Tuscon, AZ 85716.

This system uses a slide-tape presentation to teach a variety of work samples related to specific job tasks within a few major occupational areas. It is useful in allowing the student to explore various occupations, provides a limited training experience, and also evaluates the student's specific capacities as a by-product of the system.

Wide-Range Employment Sample Test. Available from Guidance Associates of Delaware, Inc., 1526 Gilpin Avenue, Trenton, NJ 08628.

This system was developed to assess injured workers' current work skills via sixteen work samples that are timed and rated by an evaluator.